What is Claimed is:

1. A waveguide directional filter arrangement comprising an input waveguide means, an output waveguide and an interconnected cascade assembly of two or more cavity resonators, wherein said input waveguide and said output waveguide each include broad wall sections joined by narrow wall sections whose aspect ratio is greater than 2:1, each said waveguide coupled via an aperture to an end cavity resonator of said cascade assembly, wherein edges of each aperture include inwardly extending curved protrusions of approximately hemicycle shape.

2. A waveguide directional filter arrangement as claimed in claim 1, wherein said approximately hemicycle-shaped curved protrusions are integral with said aperture.

3. A waveguide directional filter arrangement as claimed in claim 1, wherein said approximately hemicycle-shaped curved protrusions are in the form of discrete members attached proximate said edges of said aperture.

4. A waveguide directional filter arrangement as claimed in claim 3, wherein said approximately hemicycle-shaped curved protrusions have an associated adjustment mechanism for positional adjustment of the protrusions.

5. A waveguide directional filter arrangement as claimed in claim 1, wherein said protrusions are in the form of portions of cylinders.

6. A waveguide directional filter arrangement as claimed in claim 2, wherein said protrusions are in the form of portions of cylinders.

7. A waveguide directional filter arrangement as claimed in claim 3, wherein said protrusions are in the form of portions of cylinders.

8. A waveguide directional filter arrangement as claimed in claim 4, wherein said protrusions are in the form of portions of cylinders.

9. A waveguide directional filter arrangement including an input waveguide, an output waveguide and an interconnected cascade assembly of three or more cavity resonators, wherein said input waveguide and said output waveguide each include broad wall sections joined by narrow wall sections whose aspect ratio is greater than 2:1, each said waveguide coupled via an aperture to an end cavity resonator of the said cascade

assembly, wherein at least one pair of non-adjacent cavity resonators are coupled by at least one additional coupling element incorporating an external transmission line.

10. A waveguide directional filter arrangement as claimed in claim 9, wherein the at least one additional coupling element extends into each cavity resonator of the non-adjacent pair of cavity resonators.

11. A waveguide directional filter arrangement as claimed in claim 9, wherein the at least one pair of non-adjacent cavity resonators are coupled by two additional coupling elements incorporating external transmission lines, the two additional coupling elements being disposed in a pre-determined space relationship of approximately 90^0 to each other.

12. A waveguide directional filter arrangement as claimed in claim 10, wherein the at least one pair of non-adjacent cavity resonators are coupled by two additional coupling elements incorporating external transmission lines, the two additional coupling elements being disposed in a pre-determined space relationship of approximately 90^0 to each other.